#### **Safety Instruction**

Thank you for purchasing this HD CCTV Camera. Please read these instructions carefully for a thorough understanding of how the cameras operates.

#### 1. Operating requirements

- 1.1 Before using the camera ,please read this manual carefully and keep it safely for later use.
- 1.2 Installation should be proceed by professional service and follow manufacturer's instructions, do not dismantle without authorization.
- 1.3 In order to prevent sensor ,do not expose lens to intense light source in long time.
- 1.4 Do not touch sensor directly. Please covers the dustproof cover when the camera is not being used.
- 1.5 Please use a dry soft cloth to clean the camera. If dirt difficult to clean, use detergent with water and wipe dry the camera.
- 1.6 Do not install camera under air conditioning's air gate ,or else lens blur with condensation of moisture.
- 1.7 Please ensure that all electric power sources are turned off when not open, installation, clean, etc operation.
- 1.8 Please transporting , using and storing the camera in allowable temperature and humidity.
- 1.9 If the camera was broken, for example power cord or plug damaged ,splash liquid or foreign matter fall into camera, raining ,wetting ,etc can't work situation ,please contact manufacturer or maintenance center (modify and maintenance without permission ,you must be responsible for the problems)

#### 2.Statement

- 2.1 All photos here are for reference only .Specifications are subject to physical product.
- 2.2 This manual is subject to change without further notice.
- 2.3 Please contact with customer service for the newest procedures and supplementary specification.
- 2.4 This manual list several model numbers for reference , please user according actual product to operating.
- 2.5 We will do the best to keep this manual complete and accurate, but some data may has deviation. If any doubt or dispute ,company retain the final right of the product.

## HD CCTV CAMERA

## **USER MANUAL**



#### INTRODUCTION:

This camera which has 2.1M Pixes is specially designed for security monitoring. It applies the latest 2.1M Pixes progressive scan CMOS. It is a heavyweight new-designed HD camera which applied DC12V and support user customize the output parameter settings.

## Packing List

| NO. | Name             | Model      | Number |
|-----|------------------|------------|--------|
| 1   | Camera           | KHS-122R20 | 1      |
| 2   | Power line       | _          | 1      |
| 3   | Warranty<br>Card | _          | 1      |

2

#### Feature

- ACCE (Adaptive Color & Contrast Enhancement)
- NTSC/PAL Selectable
- DC Lens/ RS485

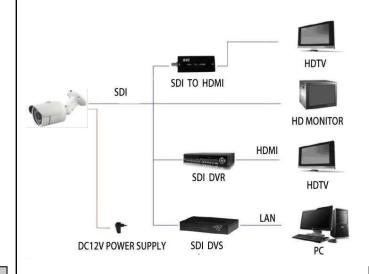
## **Specification**

| Imaging Sensor        | 1/3" 2.1Megapixel CMOS                |  |
|-----------------------|---------------------------------------|--|
| Scanning System       | Progressive Scan                      |  |
| S/N Ratio             | More than 50dB (AGC Off)              |  |
| Video Output Mode     | 1080P(1920 X 1080)                    |  |
| Video Output Level    | HD-SDI /1.0 Vp-p (75Ω, Composite)     |  |
| Lens                  | 3.6mm/F2.0                            |  |
| Min. Illumination     | 1.0Lux(Color), 0. 5Lux (BW)           |  |
| IR Distance           | 30M (with ⊄ 5X36PCS LED)              |  |
| OSD                   | Built-in                              |  |
| Electronic Shutter    | $Auto/FLK/1/25,30sec \sim 1/50000sec$ |  |
| AGC                   | Low/Middle/High                       |  |
| 2D/3D-NR              | 2DNR/3DNR/SMART NR                    |  |
| Digital Zoom/PIP      | $On/Off(x2 \sim x8)$                  |  |
| D-DFFECT              | Freeze/Mirror/D-Zoom/NEG. IMAGE       |  |
| Voltage/Current       | DC12V <u>+</u> 10% / 800mA            |  |
| Operating temperature | -10° ∼+50° C                          |  |
| Dimension (mm)        | 148(W) x 65(H) x 30(D)mm              |  |
| Weight (g)            | 500                                   |  |
|                       |                                       |  |





## **Application method**



4

#### OSD MENU LENS ■ALC $\blacksquare AGC$ EXPOSURE ■BRIGHTNESS ■SENS-UP ■AGC BACKLIGHT ■HLC ■BLC ■WDR ■AUTO ■AUTOext ■PRESET ■MANUAL WHITE BAL ■LOW ■MIDDLE ■HIGH DNR ■SHARPNESS **■**GAMMA ■COLOR GAIN ■MIRROR ■D-ZOOM ■AEC ■DEFOG IMAGE ■SHADING ■PRIVACY ■SENSITIVITY ■WINDOW ■DET H-POS ■DET V-POS TONE ■MOTION OSD ■DET H-SIZE ■ALARM MOTION ■DET V-SIZE ■OUTPUT ■COLOR ■IMAGE =COM■FRAME RATE RANGE MODE SPACE SYSTEM **■**COLORBAR ■LANGUAGE ■CVBS EXIT

#### How to use the camera

**Function Menu** 

#### **LENS**

1. When the SETUP menu screen is displayed, select LENS by

using the UP and Down buttons so that the arrow

## indicates

**LENS** 

\* ELC/ALC: Select Fix iris and Auto Iris Lens.

#### **EXPOSURE**

1. Using this function, you can control screen brightness.

- ► BRIGHTNESS: You can control the brightness.
- ► SHUTTER: MANUAL/AUTO.

\* MANUAL

NTSC:  $1/30 \sim 1/60000$ , PAL:  $1/25 \sim 1/60000$ ,

- \* FLICKER: Select this when you picture flicker.
- \* AUTO: Select this mode to control the shutter speed automatically. Shutter speed is automatically controlled depending on the brightness of the screen.
- ► SENS-UP: When it is night, the camera automatically detects the light level and maintains a clear picture.
- ► AGC: You can adjust it . The higher the gain level, the brighter the screen but the higher the noise.

### **BACKLIGHT**

►HLC: To inhibit strong light compensate and brightness of the area around it.

- \* MODE :ALL DAY/NIGHT ONLY \* LEVEL:0-20
- ▶ BACKLIGHT: This function allows you to get a clear pictures of objects even the objects in strong backlight.
  - \* H-POS/V-POS/H-SIZE/V-SIZE
- ▶ WDR: If there are bright area and dark area on the screen at the same time, this function makes both areas to be in clear image.
  - \* LOW/MIDDLE/HIGH

6

#### WHITE BAL.

According to the color temperature of environment to adjust the camera's color.

\* AUTO/AUTOext/PRESET/MANUAL

#### DNR

This function reduces the background noise in a low luminance environment.

\* LOW/MIDDLE/HIGH

# **MOTION**

► SENSITIVITY: When the number is high, the detection is increased to recognize even small movement.

- ► WINDOW TONE: 0~6.
- DET H-POS:0~60.
- DET V-POS:0~40.
- ► DET H-SIZE:0~60.
- DET V-SIZE:0~40.
- MOTION OSD: ON/OFF.
- ALARM: ON/OFF.

## **IMAGE**

► SHARPNESS  $(0\sim10)$ : Adjust the sharpness of the image.

► GAMMA: Set the GAMMA value of camera.

► COLOR GAIN: 0~20.

- ► MIRROR: you can flip the image horizontally.
- ► FLIP: you can flip the image vertically.
- ► D-ZOOM: 1.0X~8.0X.
- ► ACE: Adaptive Color Enhancement.

If there are bright area and dark area on the screen at the same time, this function makes both areas to be in clear image.

- \* OFF/LOW/MIDDLE/HIGH
- ► SHADING: Lens shading compensation.
- PRIVACY: Hide an area you want to hide on the screen.
  - \* ZONE NUM: 0~15
  - \* ZONE DISP: ON/OFF
  - H-POS/V-POS/H-SIZE/V-SIZE
  - \* Y-LEVEL/CR-LEVEL/CB-LVEL

- **SYSTEM** COM.: Communication settings.
  - \* CAM ID/BAUDRATE
- IMAGE RANGE: USER/FULL/COMP.
- OUTPUT MODE: 1080P/720P.
- COLOR SPACE: HD-CbCr/YUV/SD-CbCr.
- FRAME RATE: 25FPS/30FPS.
- CVBS: PAL/NTSC.
- LANGUAGE: ENG/CHN/CHN(S)/JPN/KOR.
- COLORBAR: OFF/ON.
- RESET